

Interconnect Fabric Module

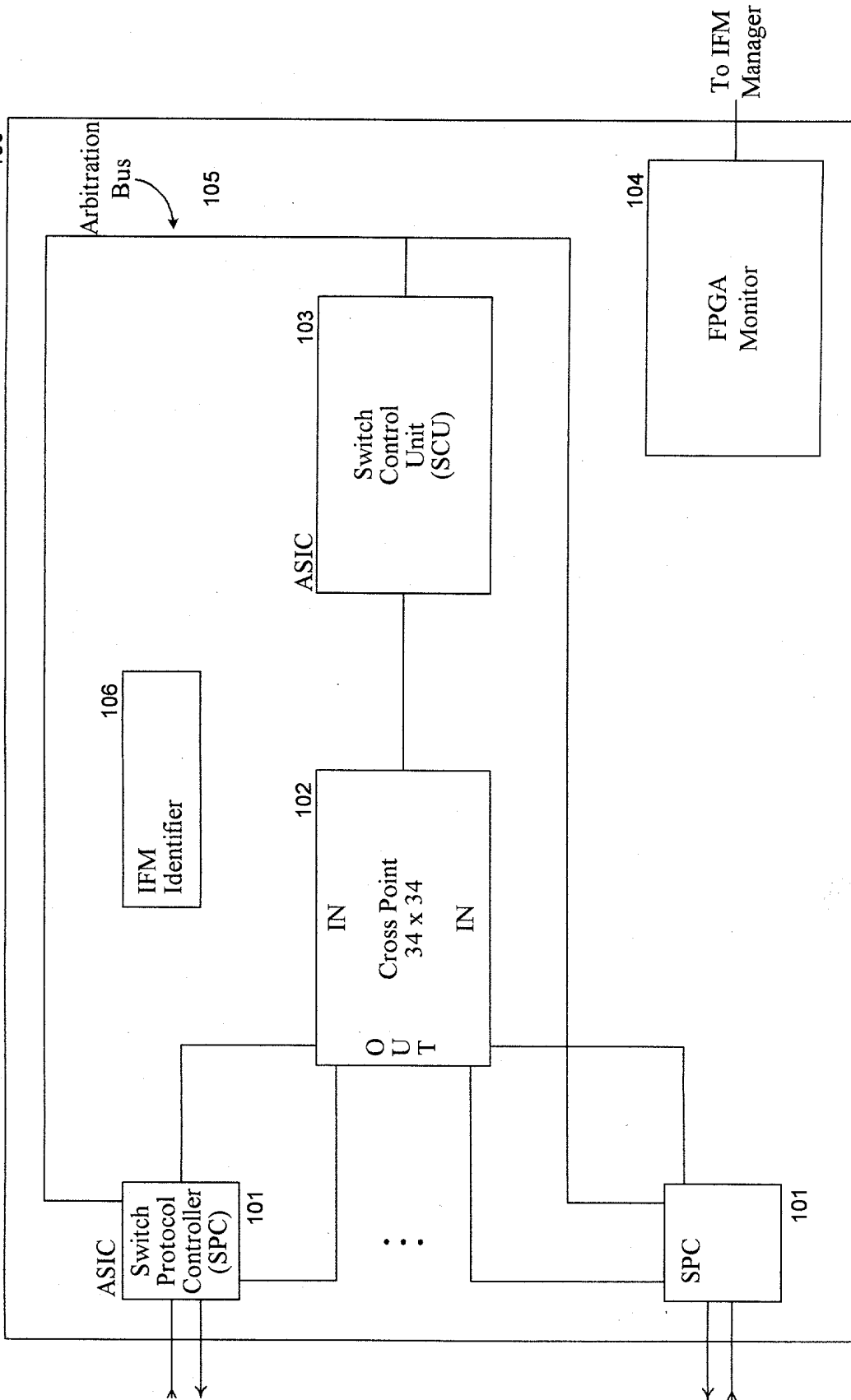


Fig. 1

FIG. 2 is a block diagram of a Switch Protocol Controller (SPC) 200. The SPC 200 includes a Receive Controller 201, a Decoder 202, a Header Processor 203, a Frame Buffer 204, a Processor 207, an Equivalent Port Table 209, a Label Table 208, a Transmit Controller 205, and an Arbitrator 206. The SPC 200 is connected to an Arbitration Bus 200 and a To/from Crosspoint Switch. The input of the SPC 200 is connected to the Receive Controller 201, and the output is connected to the Transmit Controller 205.

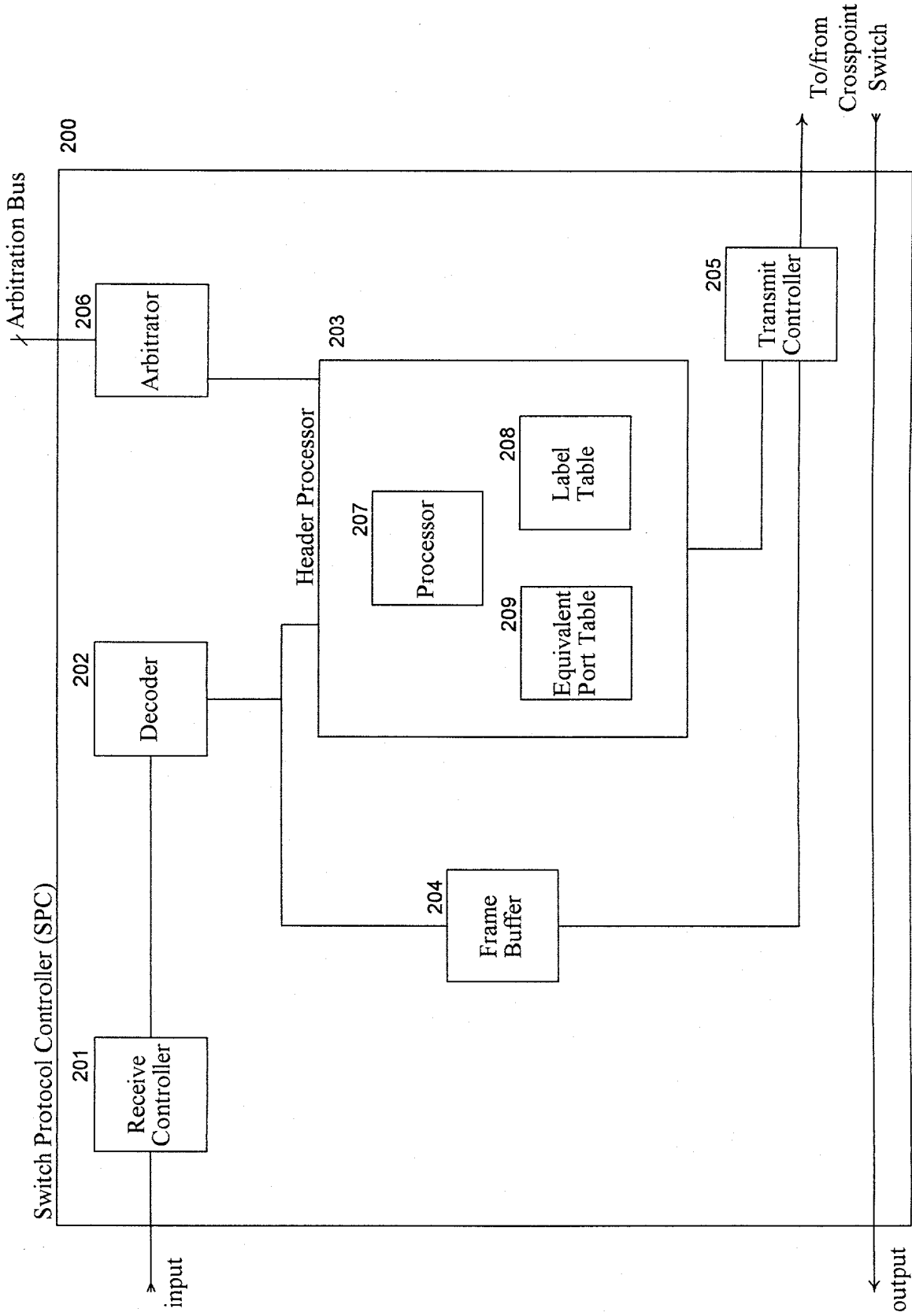


Fig. 2

[illegible]

Fig. 3

Frame

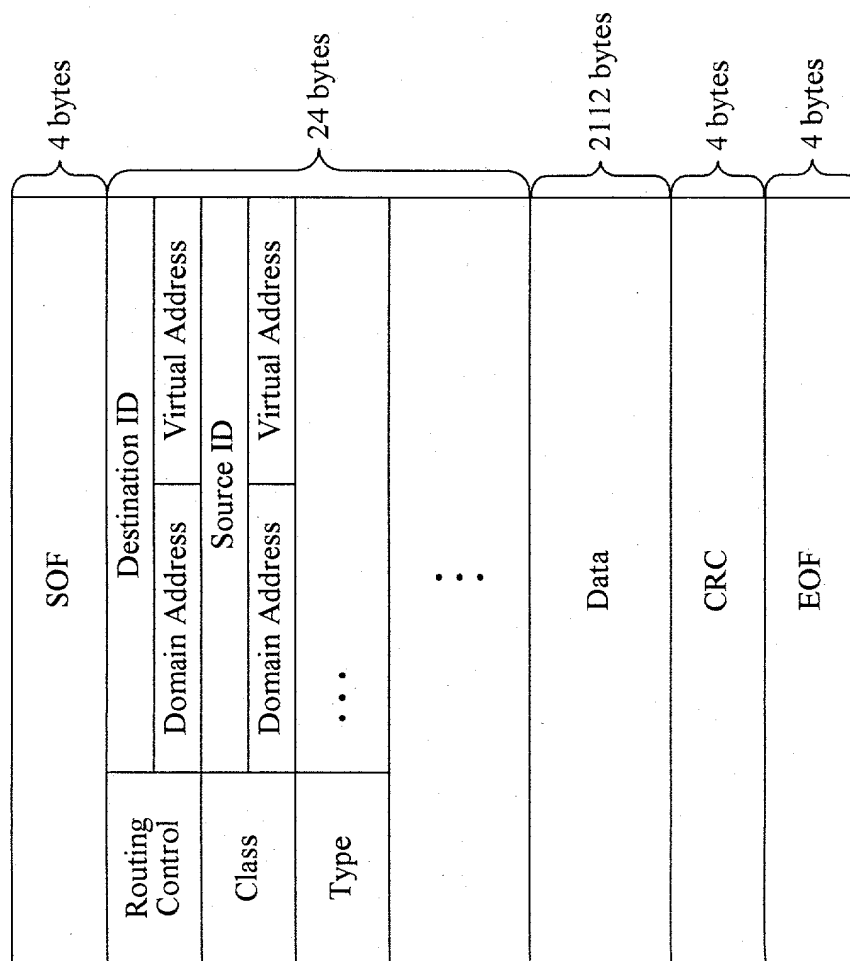


Fig. 4

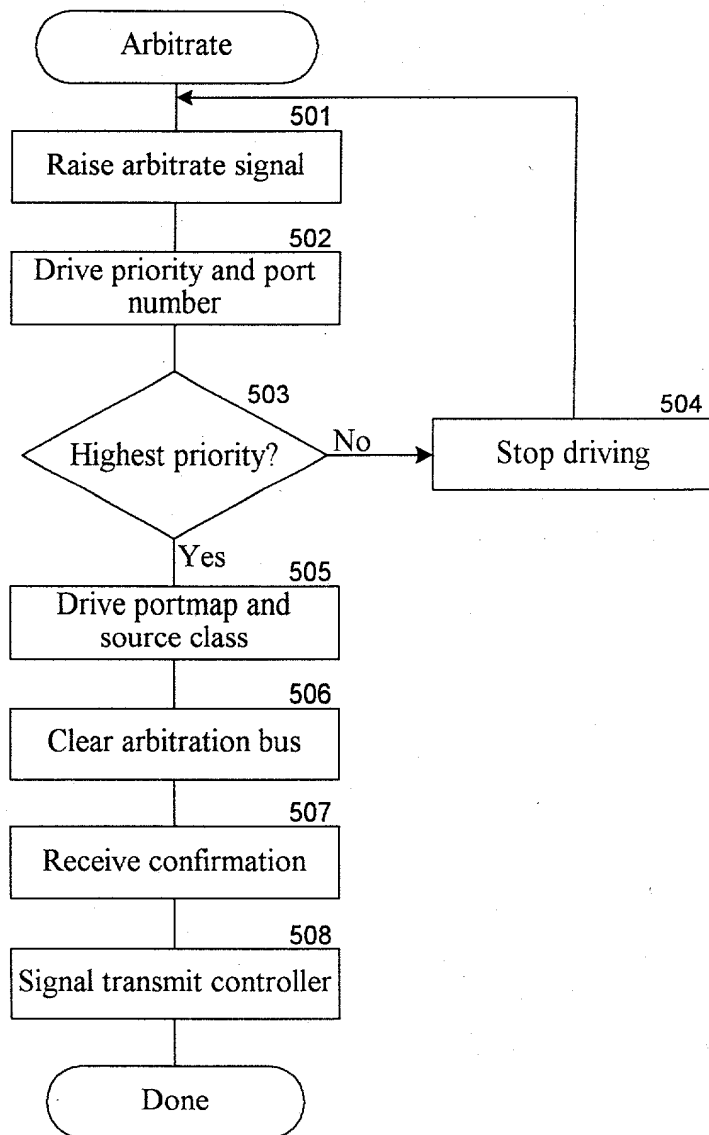


Fig. 5

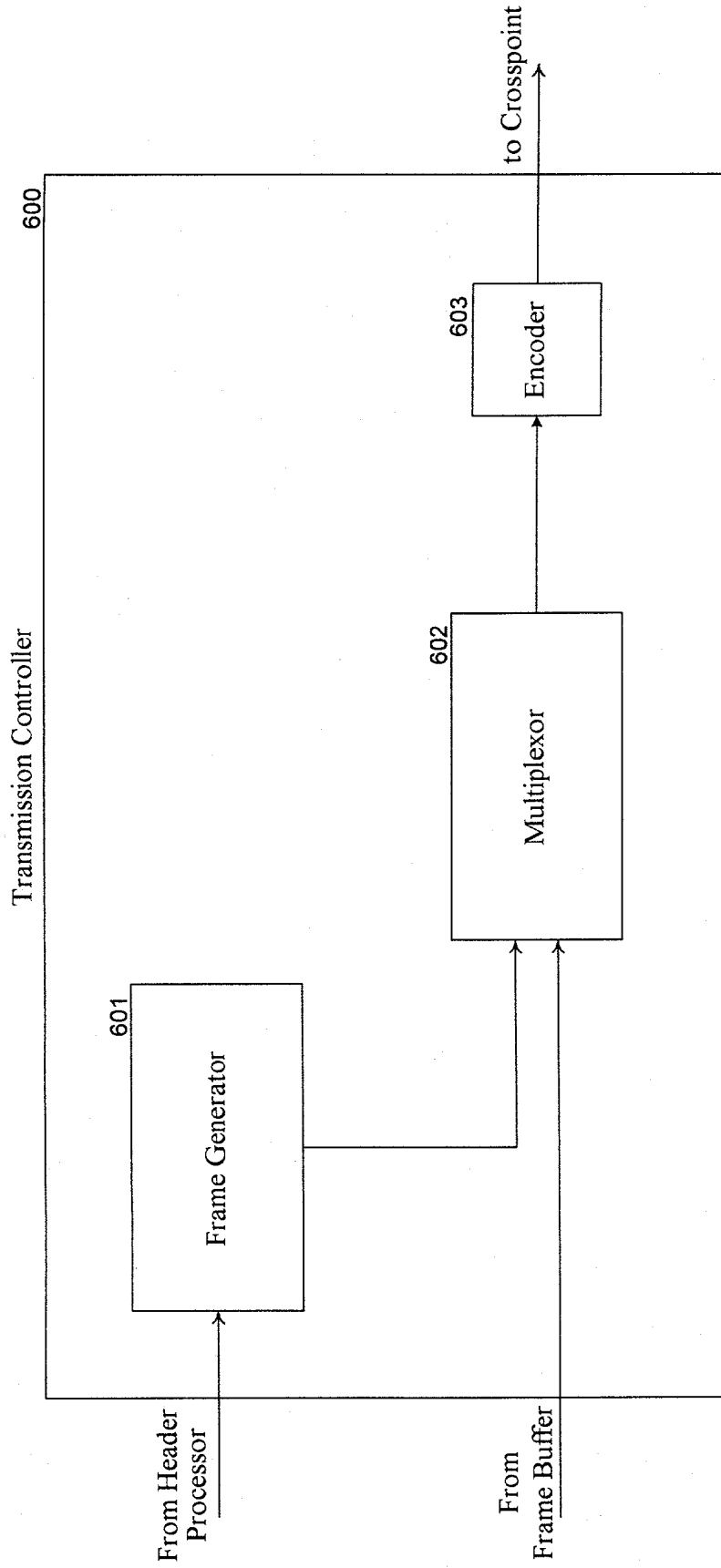


Fig. 6

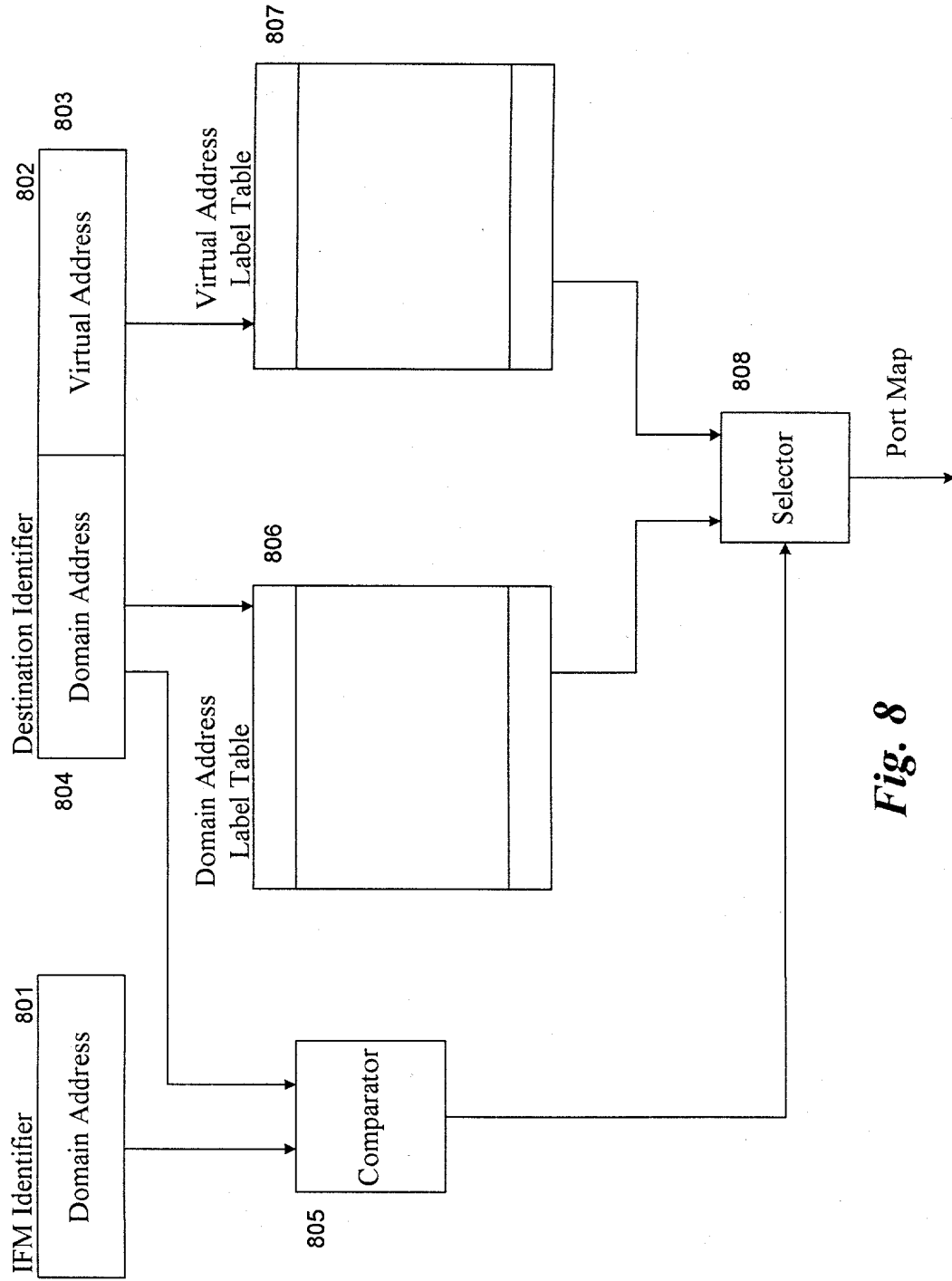


Fig. 8

Quad Switch Protocol Controller

900

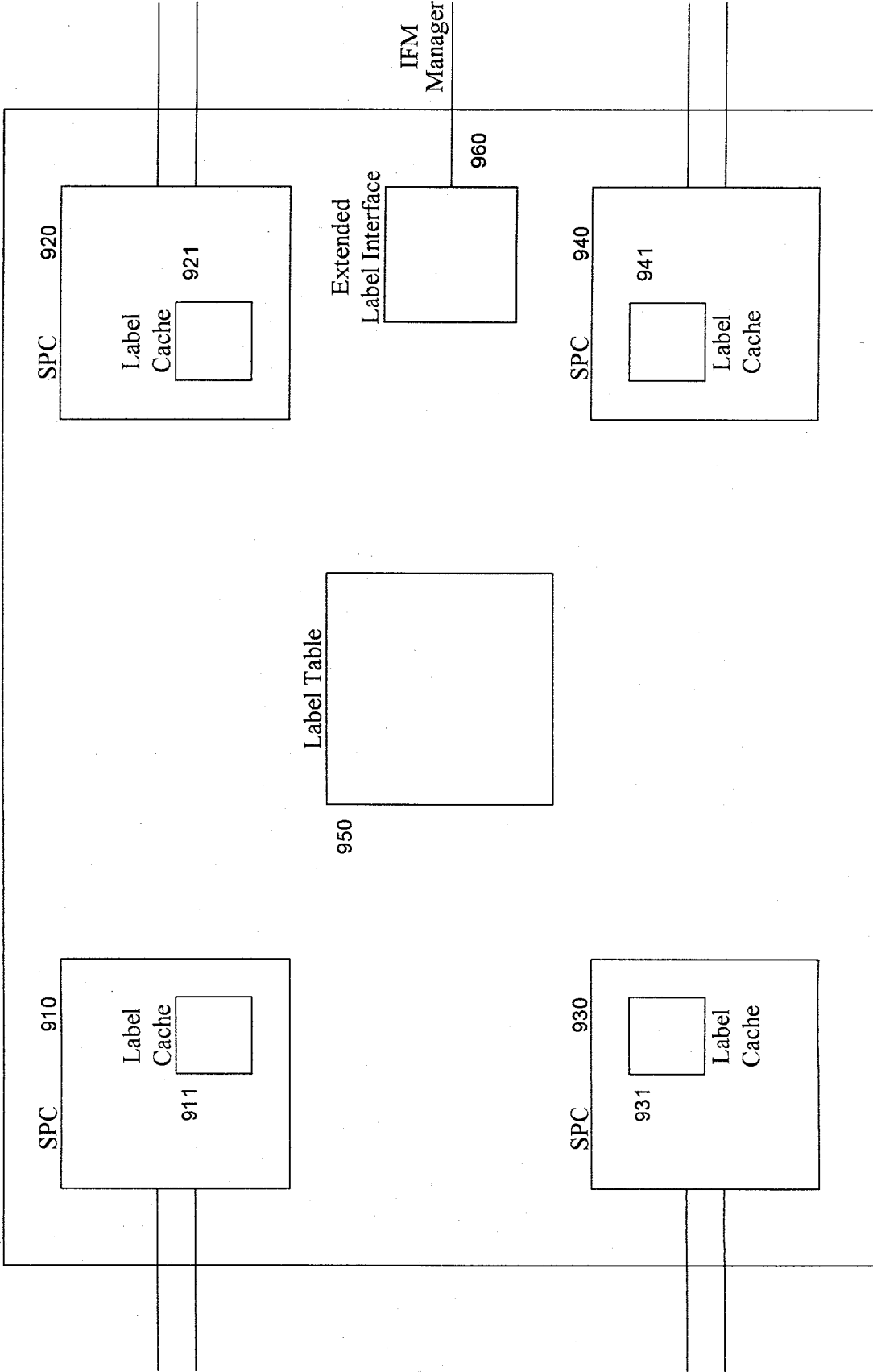


Fig. 9

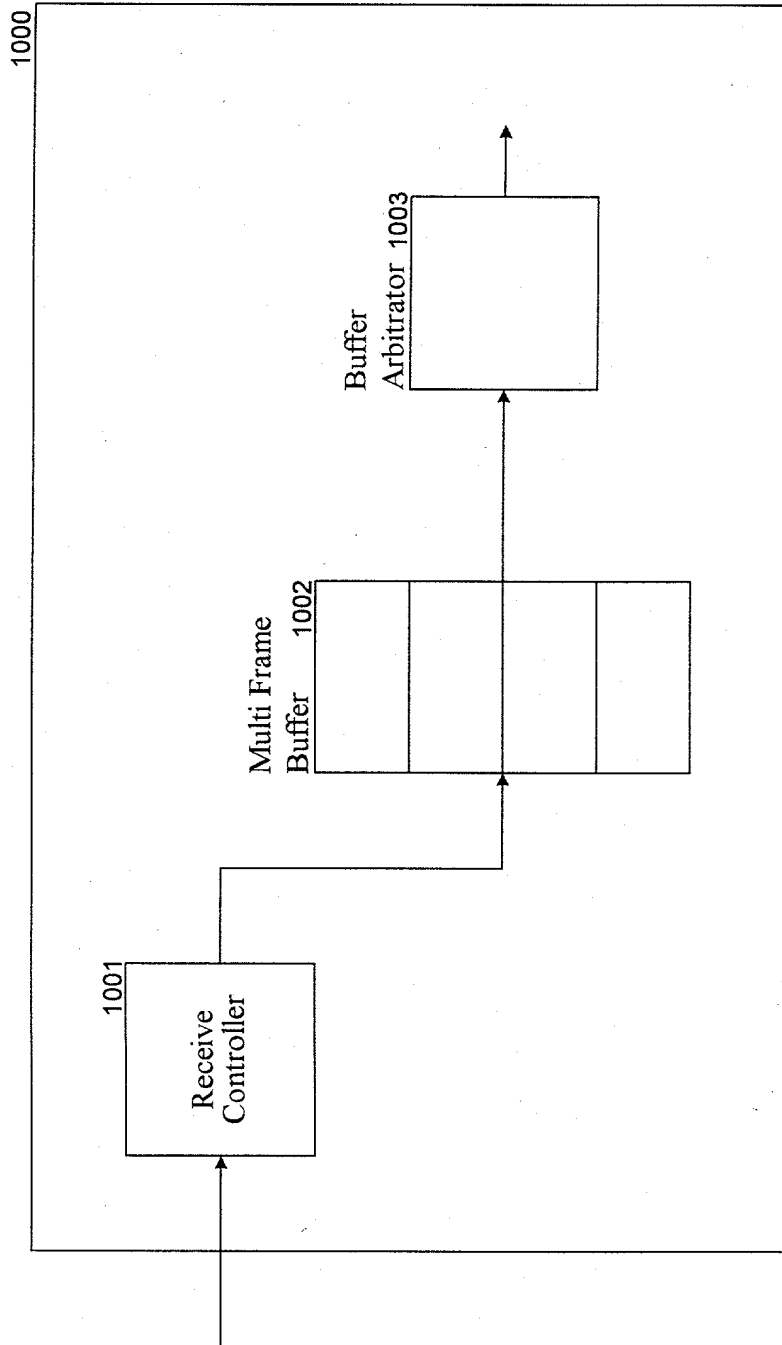


Fig. 10

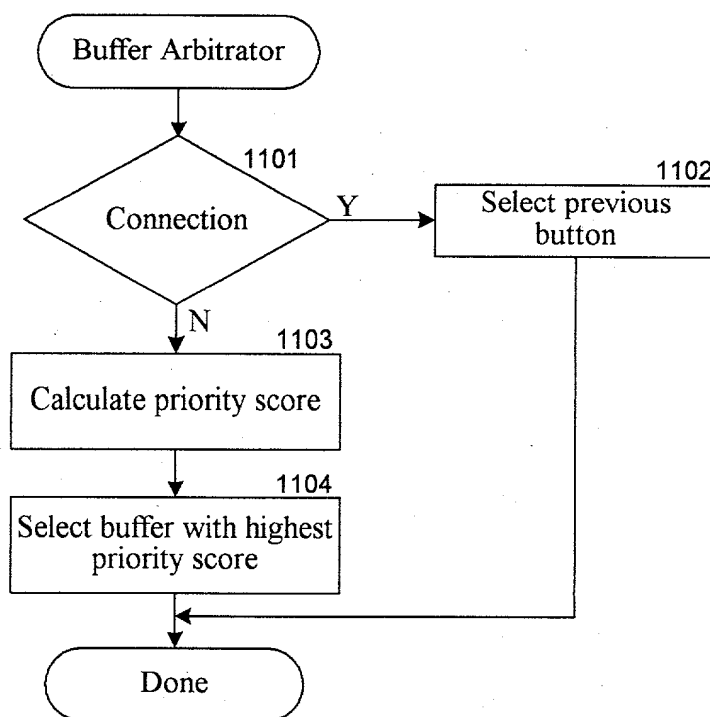


Fig. 11

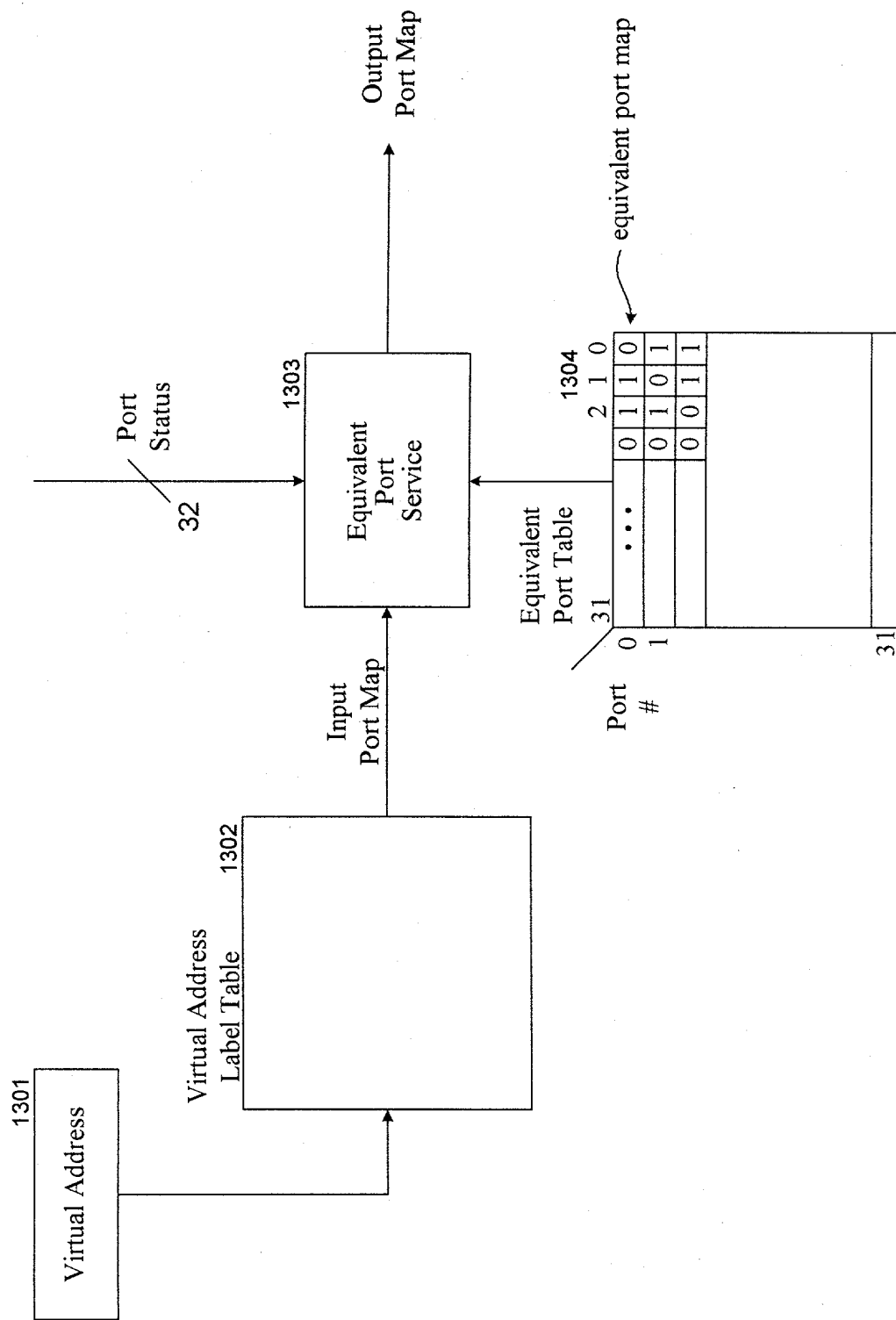


Fig. 13

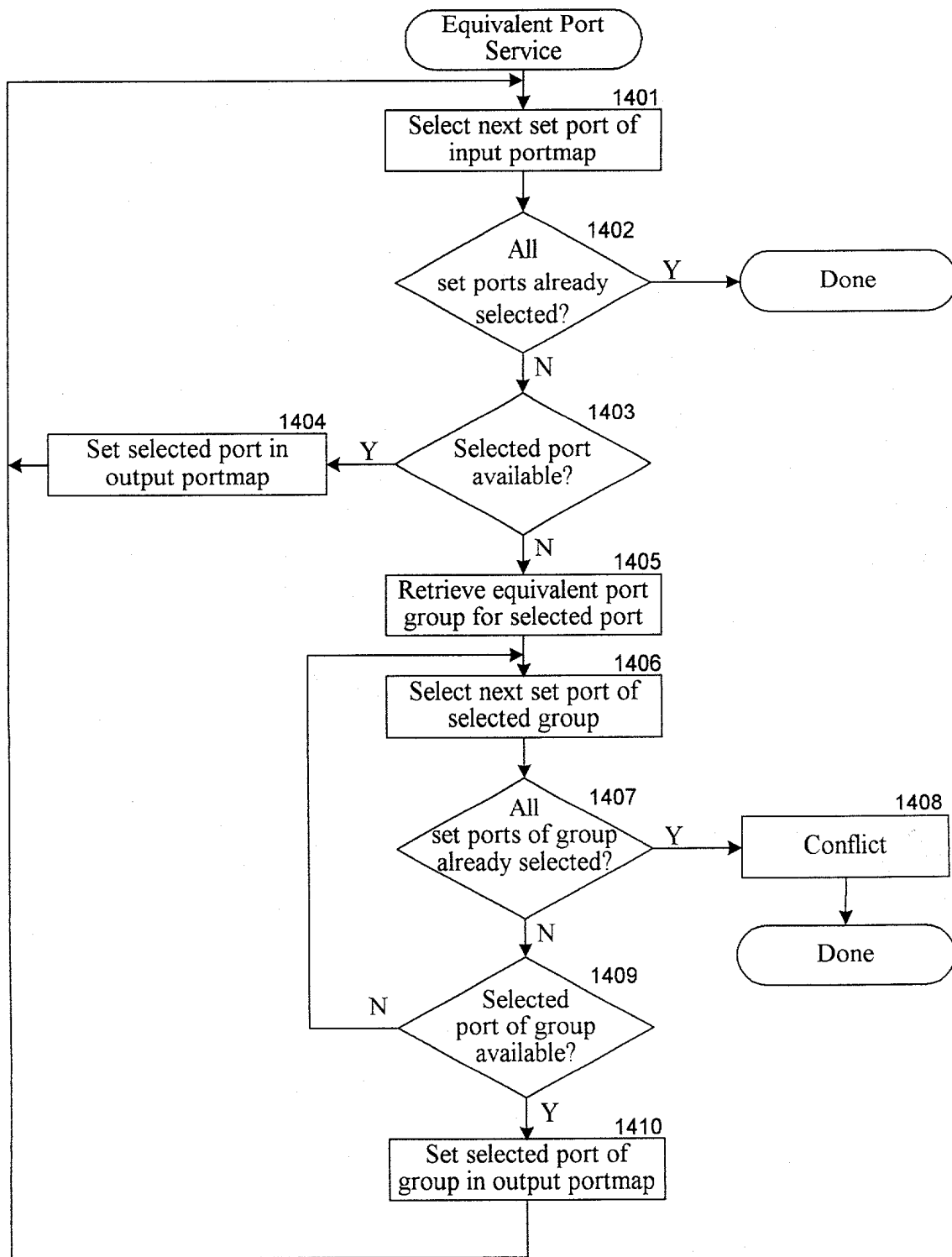


Fig. 14

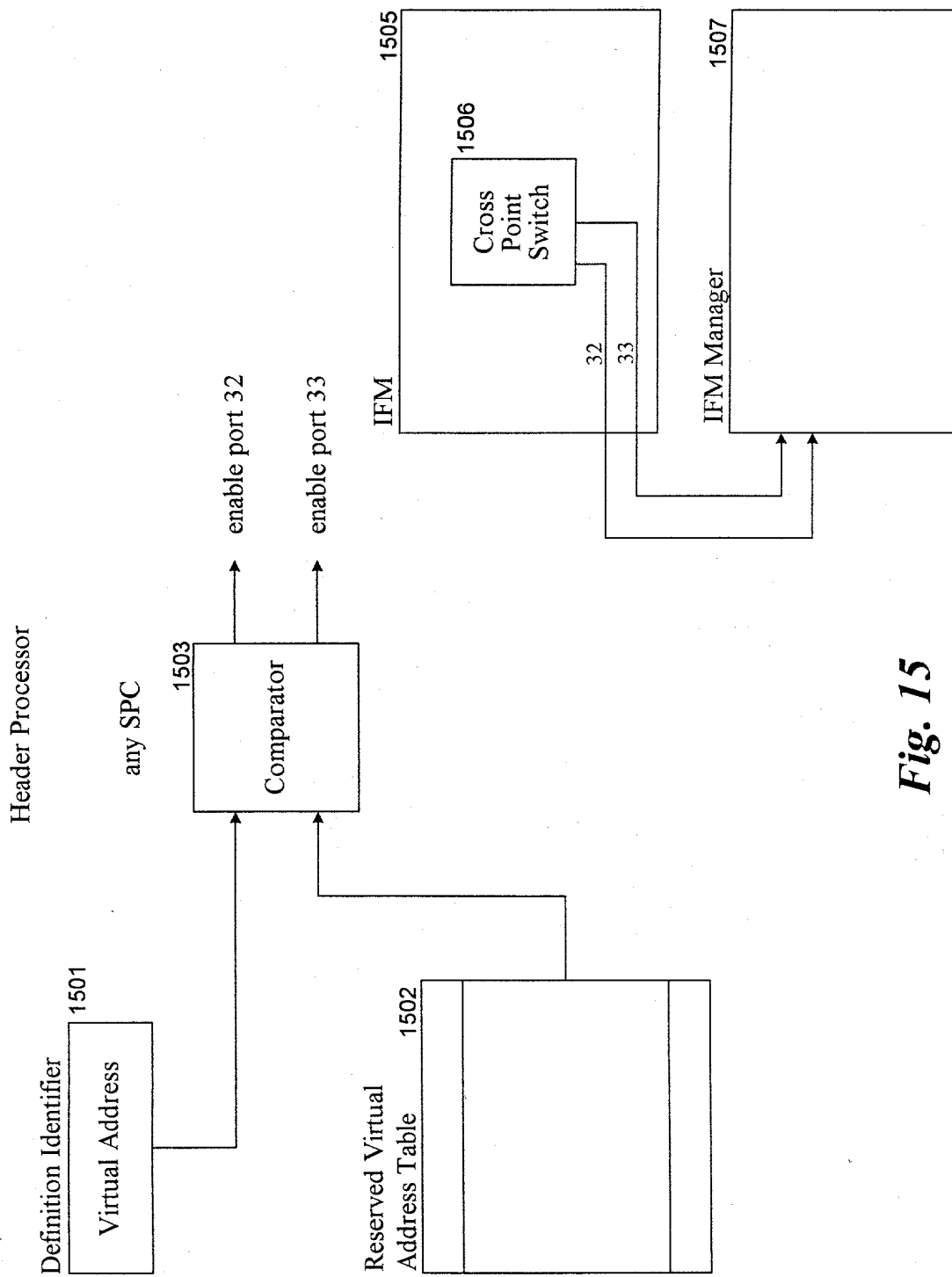
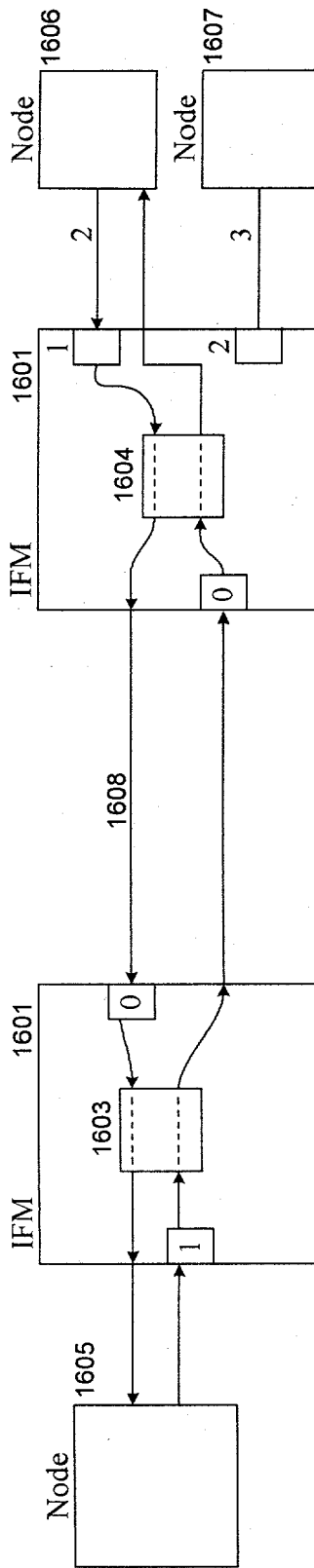


Fig. 15

1605 Node
 1601 IFM
 1603
 1604
 1606 Node
 1607 Node
 1601 IFM
 1604
 1608
 1610 Deadlock



| Time | Node 1605 | IFM 1601 | Node 1606 | IFM 1602 |
|------|--------------------|------------------------------------|--------------------|-----------------------------|
| 0 | Send start connect | | Send start connect | |
| 1 | | Connect 1 ↔ 0 | | Connect 2 ↔ 0 |
| 2 | | Forward start connect | | Forward start connect |
| 3 | | Can't forward start connect Node 1 | | Can't forward start connect |

Fig. 16

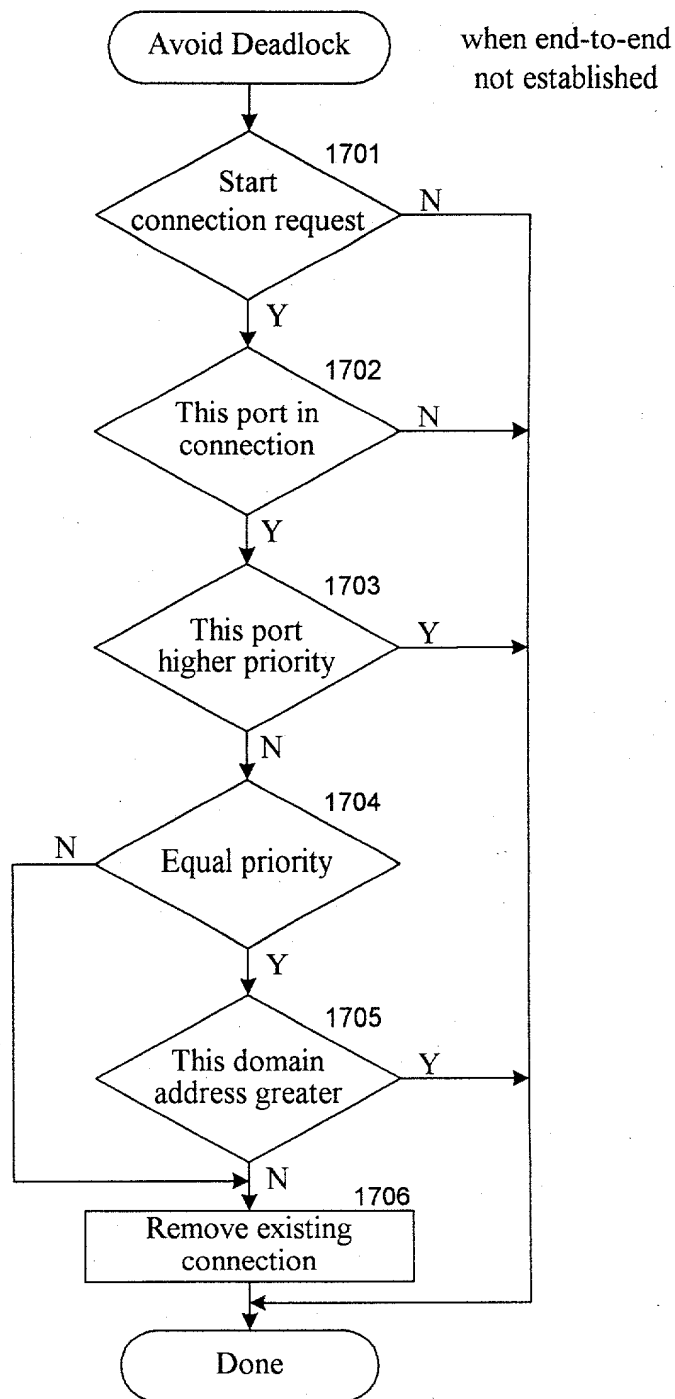


Fig. 17

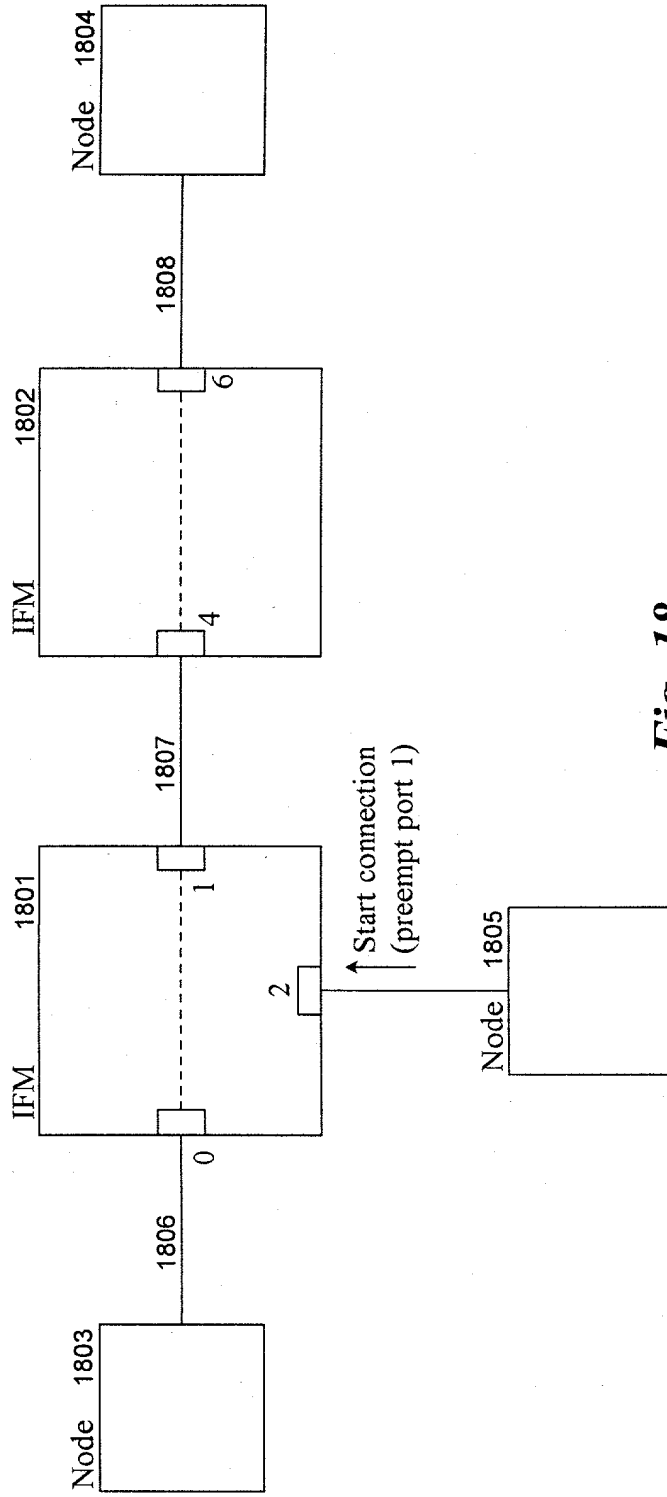


Fig. 18

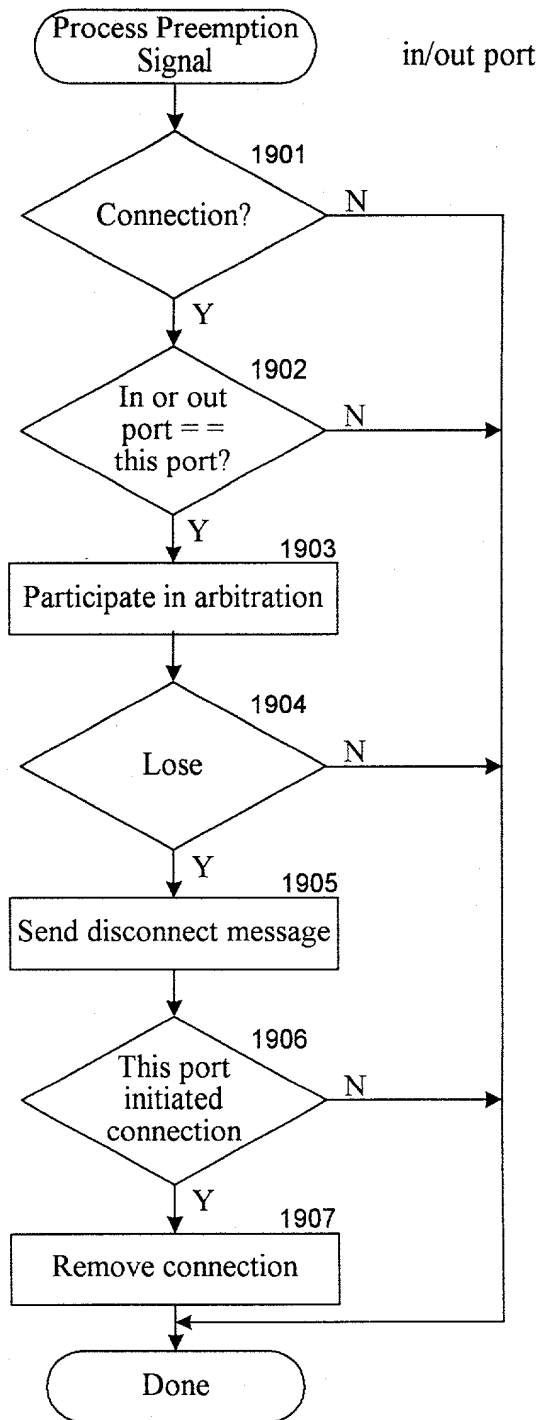


Fig. 19

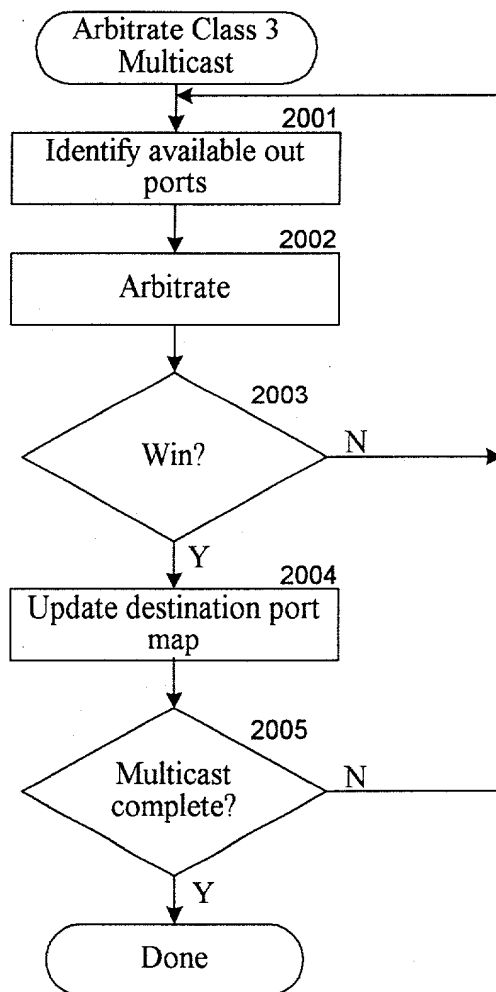


Fig. 20